



IN THE UNITED STATES PATENT OFFICE BOARD OF APPEALS

In re Application of Steve Somers)	
Serial No. 10/007,189)	On Appeal
Filed 11-8-01)	Group Art Unit 3723
For Socket Wrench)	Examiner James Smith

APPENDIX TO APPEAL BRIEF – CLEAN COPY OF REJECTED CLAIMS

Claim 8. Socket wrench-making parts adapted to form a wrench with opposite outer ends with which can be applied over and rotate non-circular elements of at least two sizes, said parts including:

a left and a right external driver member means-receiving part each having a first outer end to be located at a different opposite longitudinal outer end of the wrench when the parts are assembled and an opposite second inner end, said left and right parts respectively having walls defining differently-sized, non-circular sockets in the first outer ends thereof to be located at the opposite longitudinal ends of the assembled parts and applied over differently sized elements to be rotated by the wrench, said sockets each having an end opening thereat onto the exterior of the part involved so that the socket can be applied over and its defining walls interlock with a selected element of corresponding size to be rotated by said wrench and an opposite end opening onto a first smaller driver member-receiving bore in turn opening upon a second ball member-forming part-receiving bore, said first smaller driver member-receiving bore having bore-defining walls adapted to interlock with an external driver member means sized to be inserted into the open end of the associated larger outer socket and then moved inwardly into the associated driver member-receiving bore where it interlocks with said left or right part involved so that rotation of the driver member will rotate the wrench and turn said element enveloped by said socket at the other end of the assembled wrench;

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a ball member-forming part adapted to be secured to and between the said second inner ends of said left and right external driver member means-receiving parts, the second inner ends of the left and right parts respectively having walls defining a pair of ball member-receiving surfaces, at least one of which forms a ball-receiving bore; said ball member-forming part having a ball-forming end adapted to adjustably fit in said ball-receiving bore of one of said left and right parts and a second end adapted to be fixedly mounted against the ball member-receiving surfaces of the other of said left and right parts; and

pivot-forming first and second means permitting the pivoting of said ball-forming end of said ball member-forming part in the ball-receiving bore involved at least in a plane which includes a longitudinal axis extending between said outer ends of the wrench.

9. The socket wrench-making parts of claim 8 wherein said pivot-forming first means is a pin extendable transversely through a slot in said, ball-forming member, and said pivot-forming second means is said slot having an hour glass-shaped viewed in a longitudinal plane and a constant narrow shape of about the size of said pin viewed in a plane transverse to said axis, to permit rotation of one of said parts relative to the other of same in at least a longitudinal plane in the assembled wrench.

10. The socket wrench-making parts of claim 9 where there is also provided a spring mountable in said ball-receiving bore between the ball-forming end of said ball-forming member and an interior wall of the drive member-receiving part involved to exert a resilient axial force on said ball-forming member permitting the other driver-member means-receiving part to be pivoted in said longitudinal plane.

11. The socket wrench-making parts of claim 8 wherein said ball member-forming part-receiving surfaces of both of said driver member-receiving parts are both bores in said parts and the opposite ends of said ball-forming member are of substantially the same size and construction so that either end of said ball-forming member can be inserted into said bores of either one of said left and right driver member means-receiving parts.

12. The socket wrench-making parts of claim 8 wherein said driver member means-receiving surfaces of said driver member-receiving parts both form bores therein of identical size and shape so that said driver member means can be inserted into either one of driver member-receiving bores, whereby only one driver member is needed to rotate the wrench for the two different sizes of elements to be driven by the wrench.

13. A socket wrench which can be applied over and rotate non-circular elements of at least two sizes, said wrench having a longitudinal axis whose opposite longitudinal ends are adapted to fit over differently-sized non-circular elements, said wrench comprising:

left and a right external driver member means-receiving parts at the opposite longitudinal ends of said wrench, said parts having outer ends respectively located at the opposite longitudinal ends of the wrench and respectively having thereat walls defining differently-sized, non-circular sockets, said sockets each having a first longitudinal end opening thereat onto the exterior of the part involved so that the socket can be applied over and its defining walls interlock with a selected element of corresponding size to be rotated by said wrench and a second longitudinal end opening onto a smaller driver member means-receiving bore having bore-defining walls adapted to interlock with an external driver member means sized to be inserted into the open outer end of the associated larger outer socket and then moved longitudinally inwardly into the associated driver member means-receiving bore where it interlocks with the part involved, so that rotation of the driver member will rotate the wrench and turn the element enveloped by said socket at the other end of the assembled wrench;

a ball member-forming part having opposite longitudinal ends secured to and between the second inner ends of said left and right driver member means-receiving parts, the second inner ends of the left and right driver member means-receiving parts having walls defining ball member-receiving bores receiving the opposite longitudinal ends of said ball member-forming part, one of said longitudinal ends of said ball member-forming part fitting within and interlocking with the ball member-receiving bore of one of said left and

right driver member means-receiving parts so that rotation of said one part will impart similar rotation to said ball member-forming part, and the other longitudinal end of said ball member-forming part is a ball-forming end which fits into the ball member-receiving bore of the other of said left and right parts; and

a pin extending transversely through a slot in said ball-forming member, said slot having an hour-glass shape viewed in a longitudinal plane and a constant narrow shape of about the size of said pin viewed in a plane transverse to said axis, to permit rotation of one of said parts relative to the other of same in at least the longitudinal plane in the wrench.

15. In combination, a socket wrench which can be applied over and rotate non-circular elements of at least two sizes and driver member means to rotate said wrench, said wrench having a longitudinal axis whose opposite longitudinal ends are adapted to fit over differently-sized non-circular elements, said wrench comprising:

left and a right driver member means-receiving parts at the opposite longitudinal ends of said wrench, said driver member means-receiving parts having outer ends respectively located at the opposite longitudinal ends of the wrench and respectively having thereat walls defining differently-sized, non-circular sockets, said sockets each having a first longitudinal end opening thereat onto the exterior of the part involved so that the socket can be applied over and its defining walls interlock with a selected element of corresponding size to be rotated by said wrench and an opposite second longitudinal end of each socket opening onto a smaller driver member means-receiving bore having bore-defining walls adapted to interlock with said driver member means, said driver member means being sized to be inserted into the open outer end of the associated larger outer socket of a selected one of said left and right driver member means-receiving parts and then moved longitudinally inwardly into the associated driver member-receiving bore where it interlocks with the part involved, so that rotation of the driver member means will rotate the wrench and turn said element enveloped by said socket at the other end of the assembled wrench;



a ball member-forming part having opposite longitudinal ends secured to and between said left and right driver member means-receiving parts, the inner ends of the left and right driver member means-receiving parts having walls respectively defining a pair of ball member-receiving surfaces for receiving the opposite longitudinal ends of said ball member-forming part, one of said surfaces forming a ball-receiving bore for receiving a ball at one longitudinal end of said ball member-forming part, and the other surface being a surface for receiving the opposite longitudinal end of said ball member-forming part, one of said longitudinal ends of said ball member-forming part interlocking with the defining walls of said other ball member-receiving surface in one of said left and right socket-forming and driver-receiving parts so that rotation of said one part will impart similar rotation to said ball member-forming part, and the other longitudinal end of said ball member-forming part is a ball-forming end which fits into said ball-receiving bore of the other of said left and right parts; and

a pin extending transversely through a slot in said ball-forming member, said slot having an hour-glass shape viewed in a longitudinal plane and a constant narrow shape of about the size of said pin viewed in a plane transverse to said axis, to permit rotation of one of said parts relative to the other of same in at least a longitudinal plane in the wrench.

16. The socket wrench-making parts of claim 8 combined with said driver member means selectively insertable through a selected one of said sockets of said left or right driver member-receiving part into said driver member-receiving bore thereof where the driver means interlocks with the walls thereof to impart rotation to the assembled wrench.

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